

Heavy METL

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Official Newsletter of the U.S. Army Materiel Command's Command Sergeant Major

THIS MONTH'S FOCUS

"Building a faster response"

Command Sgt. Maj. Daniel K. Elder

Lean Six Sigma is a term that is getting a lot of buzz these days, but what is it really all about?

A merger of two business concepts that in effect streamlines an operation, increases efficiency, and reduces waste. It is a concept that can have wide application in today's military and at many different levels.

The U.S. Army Materiel Command began our journey with Lean and Six Sigma in 1998 and we have many examples of success. Our Corpus Christi Depot reduced time between overhaul for the T700 engine from 307 to 900 hours. For recapping of HMMWVs, our Red River and Let-terkenny depots increased repair cycle time by 50 percent and increased the number of vehicles from 6 to 26 a day. All this was done through the principles of Lean Six Sigma.

You may think that LSS is better applied to an industrial operation, but that is not necessarily so. Our Security Assistance Command reduced lead times involved in foreign military sales by 25 percent and improved the quality of the processes, while cutting administration costs by \$3.2 million.

You could apply LSS to processes like streamlining your unit's award process, getting more troops through your dining facility at lunch, or how you inventory the weapons in your arms room.

In most cases LSS is a detailed, common sense business approach to how you do your mission, and increasing efficiency and reducing waste (extra or unnecessary steps). By taking some time to learn the principles of LSS and being a champion, you could see improvements in many of your operations. Please take a moment to read Beth Mussleman's "Lean Six Sigma: 101" *Everything you ever wanted to know about Lean Six Sigma*. [LSS CONTINUED...](#)

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Heavy METL

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LSS CONTINUED...

Lean Six Sigma is the new buzz-phrase in the Army. You probably hear it referenced every day in meetings, briefings and general conversation.

But do you know what LSS is? Do you know the principles and concepts behind it? Do you know how it is changing the Army? Do you know how it will affect you in the near future?

Although LSS is new to the Army, the philosophies behind it have been around for some time. To understand the evolving concept of LSS, it's best to know how it began.

Lean

The originations of the Lean philosophy are usually traced back to Toyota in the 1950s. However, arguments can be made that other individuals, including Henry Ford, played significant roles in its development. In its simplest form, Lean aims to identify and eliminate waste in order to increase speed and flow. To 'lean' a process is to identify and layout each step required from start to finish, identify the critical steps, and deleting those not required or nonessential.

Although it is an improvement tool, Lean is not without its problems. Cause and effect analysis is imperative in determining what steps are essential in producing the best product and what steps produce a substandard product. In its pure form, Lean does not use cause and effect analysis as needed; rather it is more concentrated on speed, flow and elimination of waste.

Six Sigma

Its roots in the civilian world, most experts agree that the Six Sigma concept began at Motorola in the 1970s as an approach to improve quality and effectiveness through statistical control. Six Sigma can be defined as precision followed by accuracy, leading to data-driven decisions.

In layman terms, Six Sigma is designed to identify and eliminate variance (making the system more precise), moving it closer to its target (making the system more accurate), and then basing future decisions on the resulting data (data-driven decisions). In its mathematical terms, Six Sigma is achieved when a process produces less than 3.4 defects per million opportunities. Six Sigma is the

highest level of Sigma. However, Six Sigma pure also has its downside. Six Sigma continues to make a process more precise and more accurate until it is close to perfection. Since decisions are data driven rather than speed driven, time is often not factored in and therefore lost.

Lean Six Sigma

According to Rod Tozzi, HQAMC Lean Six Sigma senior master black belt, the first signs of a merger between Lean and Six Sigma were in the mid 1990s when several books combined the two philosophies; although, the joined concepts were not yet referred to as Lean Six Sigma.

Today, most major corporations utilize LSS rather than the individual philosophies. As a hybrid, LSS is able to go a step further than the preceding philosophies could. Unlike Lean or Six Sigma, LSS accepts a measure of risk and asks how to mitigate that risk. Through analysis of the process, LSS is able to track every step of the process and determine when and where it goes askew before it is complete and results in an unacceptable product.

"One of the key tenants of Lean Six Sigma is to reinforce success and abandon failure," Tozzi said. According to Tozzi, accepting that measured risk of failure allows losses to be cut and resources moved to a more efficient use.

Another benefit of LSS is the ability to determine the appropriate balance between quality and cost. For example, the high cost associated with high quality in aircraft maintenance is necessary. Airlines recognize the importance of precision and accuracy in this process and spend the required time and money. On the other hand, airline companies do not spend the time and money to guarantee that same level of precision in their baggage handling process. It would be a waste of resources to perfect the baggage handling process to such a precise target.

Lean Six Sigma and the Army

Six Sigma first made its Army debut with Army Materiel Command. Then commanding general, Gen. Johnny Wilson sent the first HQAMC team to Six Sigma training in 1998. Lean was officially stood up in 2002 by then AMC commanding general, Gen. Paul Kern in response to the need to better support our warfighters serving

in the Global War on Terrorism. Gen. Kern subsequently directed a transition to LSS in late 2003. LSS allows AMC to increase the number of vehicles and systems repaired, improve delivery times, and reduce repair cycles – while decreasing costs. Now in its third year of full implementation, LSS achieved \$110 million in savings in 2005.

"We are turning things around faster for the warfighter," said Gen. Benjamin Griffin, AMC commanding general. "This is showing significant savings and improvement wherever it has been implemented."

LSS can best be seen in AMC's depots, arsenals, and ammunition plants. The concept has provided for significant reductions in wasted time and funds.

Corpus Christi Army Depot, Texas, used LSS to reevaluate the T700 engine, used in the Blackhawk helicopter, product line. Once implemented, LSS reduced the overhaul cycle time from over 300 hours to a mere 81 hours, reduced production time from 261 days to 100, and increased efficiency by 83 percent. But perhaps most impressive was the reduction in time between replacement, from 300 hours to over 1400 – tripling the lifespan of the T700 engine.

Anniston Army Depot, Ala., utilized LSS to reduce repair cycle times in the M992 Field Artillery Ammunition Supply Vehicle, M88 Recovery Vehicle, and Abrams Tank by 20 percent, 37 percent and 10 percent respectively. In addition, they increased the production capacity of the M-2 .50-Caliber Machine Gun from 50 to 1,000 per month. In 2005, these efforts saved over \$7.6 million for their customers.

At Pine Bluff Arsenal, Ark., employees working on the M45 CB Mask Program had an unorganized work environment and were producing more defects than desired. By applying LSS techniques, PBA was able to reduce lead time from 30 hours per mask to 30 minutes, a 98 percent improvement. Quality also improved by an impressive 90 percent. These advances lead to a 25 percent increase in production, 100 units per day are now being produced versus the 80 before LSS.

In July 2005, Gen. Peter Schoomaker, U.S. Army chief of staff, sent a letter to each Army

command requesting an assessment be made of processes that would benefit from business transformation. More than 230 processes were nominated.

In March, Secretary of the Army Francis J. Harvey issued a deployment order requiring LSS be implemented Armywide. LSS business transformation principles are expected to free up resources for the operational Army and ensure quicker delivery times to Soldiers in the field.

At a Pentagon press briefing Harvey said, "It's essentially to take the work out of a process and to apply it both to a factory-type operation or repair, and also to a headquarters operation, like the Department of Army."

Once again, AMC is on the forefront of LSS implementation at the headquarters level:

AMC's Research, Development and Engineering Command, Md., applied LSS to identify the root cause of a high level of material waste during the production of the M734A1 multi-option fuse used in mortars. RDECOM identified the problem resulting in \$50,000 per month in savings, while reducing the risk of potential systems failure in the field.

The U.S. Army Security Assistance Command, Va., has shown LSS is not just for manufacturing. Since 2004, USASAC has used LSS to improve the processes involved in foreign military sales. The results reduced lead times by 25 percent, improved the quality of the processes, and cut administration costs by \$3.2 million.

Lean Six Sigma and You

With the LSS philosophy spreading throughout the Army, it is sure to become the standard. With that in mind, here's how one can be on the forefront of Army transformation:

Attend an LSS familiarization course: This three- to four-hour class offers newcomers the basics of LSS. Teaching methods and principles, the familiarization course is recommended for everyone.

Become certified: Processes and procedures altered through LSS were done so through certification projects. Personnel interested in making a change are encouraged to become LSS certified. Currently, LSS training and

certification is being held at the headquarters levels, although that is likely to change as it spreads through the Army, says George Terrell, HQAMC master black belt candidate.

According to Terrell, LSS has three levels of certification:

The first level is green belt certification. This one week training course is an in-depth familiarization with LSS tools and methods. It goes into more detail than the familiarization course, but doesn't require the statistical knowledge of the more advanced certifications. Master black belts instruct the course.

Once green belt certified, students may choose to advance to the black belt course. Requiring approximately six weeks of commitment, this program of instruction is much more intensive. Students work with their supervisor to select a process that can be more efficient, and develop recommendations based on the application of LSS tools and techniques. These projects result in the impressive improvements and cost savings attributed to the LSS program. HQAMC currently employs six black belts.

At this point, students have dedicated between five and eight months to training and are now ready to move on to the highest level of certification, master black belt. As a master black belt candidate, trainees are required to mentor at least two black belt students as they are working on their projects. The main role of a master black belt is to train, educate, mentor others in the program, and deploy LSS throughout the organization. This exclusive level of expertise will require at least one more year of training and teaching and includes courses in ethics, creative problem solving, deployment planning and instructor certification. To complete the program, master black belt candidates must instruct green and black belt courses.

At this time, Tozzi is the only HQAMC master black belt, and four candidates are in training. Throughout AMC subordinate commands, seven students are currently pursuing their certification.

"Headquarters AMC has trained almost 200 people since it began its green belt, black belt, and master black belt programs in Lean Six Sigma in

November 2004," said Ron Davis, AMC deputy chief of staff for Industrial Operations.

According to Terrell, LSS certification is an invaluable tool. "If you become certified, even at the green belt level, you possess tools and can apply techniques that no one else has."

With the implementation of Lean Six Sigma, the way the Army does business is soon to change. LSS not only provides monetary savings and waste reduction, most importantly it provides Soldiers a better product quicker. For further information about training opportunities near you, contact your local Lean Six Sigma office or visit www.amc.army.mil/lean.

Success and Survivability for the Soldier

Common Missile Warning System provides state-of-the-art aircrew protection

Outsmarting the enemy is essential to keeping Soldiers safe. Employees of the Army Aircraft Survivability Equipment Program Director's Office know this all too well.

Tragically, on Nov. 2, 2003, 16 Soldiers were killed when the Chinook they were riding in was shot down by a missile. The helicopter was part of a formation of two Chinooks carrying more than 50 passengers departing for rest and recreation leave abroad.

Shortly following the accident, then acting Secretary of the Army R.L Brownlee had enough. He requested immediate action.

"I want to see, as soon as possible, a plan to equip all our helicopters in Iraq and Afghanistan with the most effective defensive systems we have in development or procurement. Affordability is not the constraint for such a plan – only what is doable considering technology, production, acquisition and application," Brownlee stated in a Nov. 7, 2003 memo. And in handwritten postscript he wrote, "This is URGENT!"

In February 2004, the Infrared Countermeasures Product Manager's Office under the ASE PM sprang into action. With money flowing in, they started the integration and installation of the CMWS on aviation platforms. The first CMWS systems were installed on Chinooks in early August 2004.

"We've really spared nothing in terms of getting the CMWS out to the field," said Col. Philip Carey, Infrared Countermeasures PM. "When you consider that this system is state-of-the-art technology, coupled with the difficulty of rapidly fielding and integrating it on different platforms you quickly realize the enormity of meeting Secretary Brownlee's challenge. But never-the-less we took on the challenge and within a year we were actually beginning to install hardware on the aircraft that were readying for deployment in rotation 04-06. That's a tremendous accomplishment."

In November 2003, CMWS had just entered low rate initial production. "In essence we hadn't completed all the testing on the program that was required to go to a full rate production decision," said Grant South, CMWS program analyst. "When the memo came out asking for a solution – we carried forward. We've got a solution, even though we haven't completed all the testing, we have completed enough testing on the CMWS side that we are confident in this capability that it's going to answer the mail."

Starting in February 2004, PM IRCM employees started designing installation kits for platforms that were deploying. "We got the message. Went right to the drawing boards and started the A-Kit integration and that is all of the cabling and mounting points/attaching points that are installed on that aircraft and will forever remain with that aircraft," Carey said. "So we started with that A-Kit integration right away and within a year we had A-Kits installed on Blackhawks and Chinooks and worked our way into the fixed wing fleet as well and ultimately onto the Apache."

Aviation and Missile Life Cycle Management Command OLR teams went out to unit locations to field and install the A Kits. Their first stop was the 3rd Infantry Division in August 2004. They installed A and B Kits on Chinooks and Blackhawks which would be deploying to Iraq. Next equipped were some of the aircraft from the 3/158th Aviation Battalion in Germany that were getting ready to deploy to Afghanistan.

"Those were the first aircraft to deploy into harm's way with the new system," South said. By

January 2005 3rd ID aircraft were operational with their new CMWS system in theater.

"If you look at where the program has gone in terms of production, in January 2004, we were building four systems a month and this month, March 2006, we will be building 40 systems monthly, so our production has increased tenfold within a little over two years time," said Carey. "That's due to Army leadership's commitment to making ASE a top priority in Army Aviation and BAE Systems making this a high priority program and committing the resources to make the CMWS more available to the Army in very rapid fashion."

The plan is to equip more than 3,500 aircraft with the CMWS A (installation) Kits, essentially making all Army aircraft wired and ready for CMWS B-Kits. Those aircraft heading into harms way will be outfitted with the CMWS B-Kit. The Army is planning on procuring 1,710 B-Kits.

"We have installed CMWS on various aircraft across active duty, reserve component and national guard units," South said. "We were able to install the A-Kits faster than we could provide the B-Kits, so we are in the process of catching up right now. We expect to be caught up by the end of fiscal year 2007."

How CMWS Works

It is an infrared missile warning system, which looks for ultraviolet energy a missile puts out. When it detects a missile coming toward the aircraft it cues the dispenser system to launch flares which decoy the missile.

The system is composed of electro-optical missile sensors, an electronic control unit, a cockpit display unit, and dispensers. The Electro-optical missile sensors act like the eyes of the system. They see UV energy. When it sees UV energy it sends a message to the electronic control unit, which acts like the brain of the system. The control unit decides whether or not there is a threat to the aircraft and if there is it sends a signal out to the Improved Countermeasure Dispenser which launches the flares to protect the aircraft by decoying the missile. Much like the human body reacting to a stimulus, the CMWS does all of this in a matter of seconds.

The most common types of missiles encountered by Army aviators on the battlefield are the surface-to-air infrared man portable air defense systems. Essentially this type of missile is seeking a heat source on the aircraft. By putting out flares, it is decoying the missile to the heat of the flares. The flares are emitting infrared heat to become a more attractive target than the aircraft.

"It's very important to put the most state-of-the-art survivability equipment into the hands of our warfighters who are facing one of the most severe threats on the battlefield - Man-Portable Air Defense Systems," Carey said. "We already know there is a huge proliferation of those throughout the world. There are large concentrations of them within the theater of operations. Although we've done our best to identify them we can't eliminate them all. They are very accurate, very potent weapon systems. And it only takes one, which the Army learned from the shoot down of the CH-47 in November 2003 how devastating these weapons can be."

"Our objective here is to counter the precision guided weapon systems such as the MANPADS and to neutralize them," Carey said. "We can't put the insurgents out of business from here, but our products can make their business as bad as it can get. And the worse it gets for them the potentially less resources will be committed to their cause."



*A Common Missile Warning System on a UH-60 Blackhawk in Iraq dispenses flares to decoy a missile away from the aircraft.
Photo by: Grant South*

CMWS Success

The 3rd ID has since returned and the aviation brigade commander, Col. Ron Tuggle can attest to CMWS reliability "I think CMWS gives the crews one less thing to worry about," Tuggle said. "Instead of worrying about being fired on from the rear, they can look for the enemy."

Systems like the CMWS give aviators more decision making time. This time is so important when making the right decision in a critical situation. Carey has heard from commanders like Tuggle of situations where pilots protected by Aircraft Survivability Equipment were actually willing to take a couple of extra minutes and survey a scene around the objective. In one situation this extra time prevented fratricide because what the pilot thought was insurgents placing an Improvised Explosive Device turned out to be Iraqi Army Soldiers setting up a traffic control point.

"If you feel more secure, if you are better protected, if you can afford to take the additional time - you make better decisions in the long run," Carey said. "That decision affects a better outcome not only on that mission but in the overall mission within the theater because these things all begin to accumulate upon one another."

In terms of success, the CMWS has effectively countered a multitude of hostile engagements against Army aircraft said Carey. "It is definitely effective," he said. Another sign of success is seen in the broken missile coins that BAE awards to crewman who report being protected by the CMWS in theater. "Needless to say, BAE systems by virtue of reports brought back to the airfield by crews successfully defended by CMWS have distributed a number of those coins."

One of the more significant testimonies to CMWS's success is a statement printed on a poster in Carey's office by an aviator from the field. "I believe CMWS saved us." This Soldier essentially saw the missile coming toward the aircraft, saw the system dispense the flares and saw the missile go away.

"So what we are doing is slowly, but surely building up confidence among the troops in CMWS. Confidence that CMWS will perform the vital role of protecting them in the theater of operations," Carey said. "My job boils down to one line: success and

survivability for Soldiers. That's our job here. Build the systems that make Soldiers successful, enable them to fight, win and survive on the battlefield and come home alive to their family and friends.

A Unified Effort

The ASE program office falls under the Program Executive Office for Intelligence, Electronic Warfare and Sensors. Carey describes the way PEO IEW&S works with Aviation and Missile Life Cycle Management Command and the PEO for Aviation as a team effort.

"This has to be truly one of the most satisfying jobs that I have personally had in my career because I have never seen such an outstanding command climate right here at AMCOM," he said. "The platform PMs that I work with have been wholly supportive and simply outstanding in their willingness to work with us and to provide us everything we need and consequently we in turn want to provide them with the most effective ASE that we know that they need on the battlefield."

BAE systems and their subcontractors also play a role in the team effort to get CMWS to the field. Recently Soldiers who had returned from Iraq went to visit the factory. "When you touch a Soldier's life you never forget that. When Soldiers like Col. Tuggle and Chief Warrant Officer Duane Oldfather come back into the factory to shake people's hands, those people will remember that for the rest of their lives. There's two American heroes that they brought home alive," Carey said. "We are giving our Soldiers the best protection that we have available today so that they don't suffer the same fate as those on the CH-47 in November 2003."

The HEAT is on!

Coalition Forces Land Component Command personnel in Kuwait are developing a new training device to reduce or eliminate injury or death suffered by troops involved in HMMWV rollovers in theater.

The device evolved from a comment by then Forces Command commanding general, Gen. Larry Ellis, following the deaths of three Soldiers Dec. 8, 2003, when their Stryker overturned into a

canal, said Chief Warrant Officer Rik Cox, Forces Command safety officer.



AFSB-SWA Commander Col. Charles Wilson stands on the FRA-designed HEAT platform, introduced at Camp Arifjan to save Soldier's lives. U.S. Army photo.

"The aviators train on the Dilbert Dunker, why can't we do something like that for the ground troops?" Ellis asked, according to Cox. That comment was the impetus for FORSCOM's Safety Office to investigate expanding the helicopter egress training device to a ground-based program called the HMMWV Egress Assistance Trainer, said Cox, the project organizer.

Cox got the go-ahead in March 2005 to develop a device based on the Dilbert Dunker, a Navy Aviator training device that teaches air crews how to escape following a ditching at sea. He said the first Soldier was hanging upside down from his seatbelt in the first HEAT prototype built by U.S. Army Reserve Soldiers in September 2005.

With a photo of the first prototype, the Army Materiel Command's Forward Repair Activity was directed by the U. S. Third Army commanding general to design and build an upgraded prototype here.

"We were presented with an idea to save troops' lives," said Chris Turner, a FRA government civilian welder deployed from the Anniston Army Depot, Anniston, Ala.

To build the first prototype in theater, Turner and Ricky Cline, FRA shop foreman, acquired the HMMWV shell, gear boxes and stand from the Defense Reutilization and Marketing Office and the retrograde yard and built it in one month.



Sgt. Shawn Heitzman, 233rd Transportation Company truck driver, sits in the driver's seat of the HEAT trainer as it simulates a HMMWV at a 30-degree angle before rolling over, Jan. 23 at Camp Arifjan. The HEAT simulations program teaches servicemembers about roll-over conditions, avoidance, and immediate action taken after a roll-over has occurred. U.S. Army photo.

The equipment was made with used parts, saving the Army a lot of time and money to put together, Cline said.

CFLCC is now using the prototype as a proactive measure to prevent future rollover accidents by applying the HEAT concept to train Soldiers in Kuwait and, eventually, to troops all over the Middle East region.



Sgt. Jeffery Johnson, 233rd Transportation Company truck driver, crawls out of the HMMWV Egress Assistance Trainer Jan. 23 at Camp Arifjan. The HEAT simulations program teaches servicemembers about roll-over conditions, avoidance, and immediate action to take after a roll-over event. U.S. Army photo.

The newly built HEAT prototype is composed of a suspended HMMWV cab mounted to an elevated M-1 engine maintenance stand raised on a trailer. The attached motor can turn the device 180 degrees in either direction in six seconds to simulate a HMMWV rolling over.

"We took something that didn't exist in theater and made it work," Turner said. "We are now testing it to make sure it is going to save a Soldier's life, which is what this is all about." Approximately 250 Soldiers have been severely injured in rollovers since the beginning of Operation Iraqi Freedom.

Another prototype is currently in production and will be tweaked pending any suggestions from trainers who have tested the initial model. Eventually, six HEAT simulators will be located at camps throughout Kuwait to train Soldiers.

M-18 grenades pass first tests

Like a phoenix rising out of the ashes, the M-18 grenade program is being revived at the Pine Bluff Arsenal following a two-year delay in the program.

Despite the delay, PBA is back on track having recently passed a First Article Test on M-18 violet grenades. Thirty-five grenades were run through various tests, including environmental chamber testing, temperature tests, a simulation test and the grenades were also dropped into water for 30 minutes. All 35 grenades passed with zero failures.

The program was stopped at PBA in February 2004 because of delays with acquiring the Technical Data Package and the procurement and delivery of components to make the grenades. The TDP consists of drawings and specs of the particular ammunition product being produced.

"This is one of our bread and butter programs," said Roch Byrne, director of Ammunition Operations at PBA. "Three main issues affected the startup of this program over the past two years – the TDP review, M201A1 fuse and the grenade body and top assembly," said Byrne.

"Engineering changes were made to the TDP which has contributed to delays across the board with fuses, body/top assemblies and dyes.

Also, numerous changes were made to the fuse TDP," added Byrne.

"Getting this program back on track is a solid testimony to the commitment and responsiveness of the PBA workforce," said Col. Brian Lindamood, PBA commander.



Soldiers from the 752nd Explosive Ordnance Disposal unit at Pine Bluff Arsenal train with the M-18 grenades in February. (U.S. Army photo by Rachel Newton)

Byrne said the passing of the FAT was a very emotional event for ammunition operations and the arsenal as a whole. "There have been some blood, sweat and tears over this," he said. "However, we are set to go and we are very excited about that. It just goes to show that we have the expertise here to make grenades and make them very well."

"It's been long awaited and the entire workforce is very eager about the grenade program," said Larry Wright, PBA civilian executive assistant. "The FAT was a huge milestone and we are definitely poised to successfully produce the requirements of this project."

The demand for M-18 grenades in Iraq, Afghanistan and other places is very high. "There is no place more responsive and more reliable to produce these than PBA," said Lindamood. "This is our biggest, volume-wise, ammo line. When we have it running full steam it is a huge boost to our production numbers."

The pacing component of the M-18 program is going to revolve around the body/top assembly for the grenade. Delivery quantities for these items are set at approximately 50,000 a month, which is about 40 percent of what the PBA can produce.

"The M-18 grenade program represents approximately 65-man years of work over the span of the entire program, said Wright. "No other program has touched us as deep as the M-18."

The folks at Pine Bluff know how to make grenades, said Byrne. "If we get good components, we will make a good grenade - that is the bottom line," Byrne concluded.

The network protects the Soldier: return the favor

The network protects the Soldier. It's not the kind of protection offered by body armor or a proper foxhole, but the data that flows across the network provides situational awareness. It shows the enemy's activities and locations. It contains our plans, reports, and Soldiers talk across it to coordinate and control their movements. When our Soldiers lose trust in the network they lose a critical layer of protection. The enemy knows this and would like nothing more than to eavesdrop, disrupt or mislead us through it. That's why Soldiers use a variety of cryptographic equipment to secure voice, data and video communications across the battlespace.

Communications Security Logistics Activity is the developer and provider of New Equipment Training on Communications Security, Information Security and Information Assurance products. The CSLA mission provides operator, maintainer, and system administrator training on CSLA-managed cryptographic products such as the Secure Wireline Terminals, Secure Terminal Equipment, Secure Global System for Mobile Communications Cellular Phone, KY-100 AIRTERM, and In-Line Network Encryptors such as the Sectera KG-235 and the TACLANE KG-175.

The CSLA NET team is comprised of twenty full time government and contract instructors with over 400 years of experience in COMSEC/INFOSEC/IA operations and maintenance.

Instruction occurs at various U.S. and overseas locations, and varies between eight and forty hours, depending on equipment type. The CSLA NET team has three classrooms located at Fort Huachuca, Ariz. One room houses the secure

voice applications course which is designed to provide the student with extensive knowledge of the interoperability of the STE, SWT, and SGSM devices. The INE classroom is used to teach the student about securing Internet Protocol traffic across their local area network. The third classroom is currently under development and will eventually house equipment being developed under the cryptographic modernization initiative. Classroom size varies depending on the course of instruction. Local classes at CSLA are held on a monthly basis. In addition to course content, we provide instruction on doctrine, policy, and procedures impacting these COMSEC/INFOSEC/IA devices. The NET team not only provides quality instruction on the aforementioned equipment, we also provide technical assistance to the warfighter as needed.

Additional information on course offerings and content can be provided by the CSLA NET team training coordinator and student registrar/scheduler, Crystal Fetting, DSN 879-8383 or the team leads, Dan McGarry (Secure Voice), DSN 879-8384, and Ken Ploskonka (INE), DSN 879-7537. Commercial prefix is (520) 538-xxxx.

Comment cards provide "voice" for Soldiers

The U.S. Army Research, Development and Engineering Command developed a program to let warfighters know that their opinions about what they wear, what they eat and the equipment they use to accomplish their missions matter by distributing comment cards to deployed Soldiers as well as those stationed state side.

RDECOM Command Sgt. Maj. Eloy H. Alcivar said that the innovative program, which was launched in November, was developed as a team effort within RDECOM to improve communications between Soldiers in the field and RDECOM laboratory scientists and engineers who provide them with technological improvements. RDECOM has scientists and engineers working to improve and advance technologies for the warfighter.

"The comment cards have allowed us to obtain feedback directly from the Soldier and to help scientists and engineers develop and improve current technologies and equipment," Alcivar said.

The comment cards' questions have been revised several times based on input from the field and are changed to address current issues of Soldiers as well as input from the labs and centers. We've gotten feedback about specific concerns Soldiers may have with equipment, suggestions on improving the equipment, and various other issues.

RDECOM is ensuring that Soldiers' comments are put into the right hands for action. It is a collaborative effort between the Mission Support and Communications Division personnel at RDECOM's System of Systems Integration and the U.S. Army Materiel Systems Analysis Activity, a subordinate unit of RDECOM. AMSAA is conducting a trend analysis of the input and SOSI ensures the right labs, centers or organizations receive the comments.

AMSAA has found so far that incoming responses represent a moderately diverse sample of Soldiers. Most Soldiers surveyed were found to be mid-career. Based on current feedback, AMSAA has found that Soldiers share a common need for the kind of gear that will make them most comfortable, feel secure in tense situations, and protect their lives. It is eye opening that thousands of Soldiers can individually ask for the same necessities by name over and over. As AMSAA refines the RDECs' questions and the survey process, it expects representation by most MOS's and ranks.

AMSAA will refine the surveys and surveying process to produce quality analysis in a timely fashion for action by the RDECs. The success of this process will be measured by the amount of time it takes to improve the Soldiers' materiel and provide direct feedback to the Soldiers.

In the cases where concerns are outside of RDECOM's responsibilities, SOSI passes the concerns to the correct organization so that all comments are addressed.

For those Soldiers who request feedback from their comments, information is provided about where the comment was sent and how RDECOM has addressed them. An added benefit of this program has been that awareness of RDECOM has increased among Soldiers.

RDECOM is not known by many Soldiers in the lower ranks, Alcivar explained. Now Soldiers can feel like they are contributing members of the planning process and play a role in the improvement of new technology and equipment. They now have an active voice and a tool in which they can use it.

"RDECOM's main customer, the warfighter, is key to the success of the program. We need cooperation from leadership and continuous support for the program to assist them and provide better support," said Alcivar.

To ensure that operational security is maintained, Alcivar personally distributes and collects the comment cards from Soldiers. Soldiers who have questions or comments can contact RDECOM at www.rdecom.army.mil or Systems of Systems Integration, Chief of Operations, 6000 6th Street, Fort Belvoir, Va. 22060-5608. Care should be taken not to provide sensitive information about systems in any un-secure mode.

Soldier Protection

Army Materiel Command's TACOM Life Cycle Management Command has remained at the forefront in helping our warfighters in many ways. One area that was recently highlighted in the Army's daily "Stand-To!" publication showed what TACOM was doing in the area of Soldier protection – specifically Interceptor Body Armor.

Program Executive Office Soldier is a partner in the TACOM LCMC organization and is dedicated to developing the best equipment and fielding it as quickly as possible so that our Soldiers remain second to none in missions that span the full spectrum of military operations. Below is an excerpt from the Stand-To! article on PEO Soldier's Interceptor Body Armor:

Interceptor Body Armor

What is it? Interceptor Body Armor is a modular, multiple-threat body armor composed of ergonomically designed front and back plates, and an Outer Tactical Vest, compatible with the modular lightweight load-carrying equipment. The OTV weighs 8.4 pounds without plates and protects against fragmentation and 9 mm rounds. The small arms protective insert plates can withstand multiple

small arms hits. Total system weight is 16.4 pounds, which is nine pounds lighter than the Personal Armor System Ground Troops/Interim Small Arms Protective Over-vest combination. Attachable throat and groin protectors provide increased protection, and webbing attachment loops on the front of the vest allow Soldiers to tailor loads to meet mission needs.

What has the Army done? Each new generation of body armor is designed to increase protective capability to stop or slow down fragments and reduce the number of wounds over older versions. The latest version of IBA is a joint service item designed and developed to incorporate the requirements of the Army and Marines. This system was designed to replace the ISAPO and the Personnel Armor System, Ground Troops vests. Additionally the Army has augmented IBA with Deltoid Auxiliary Protection capability which covers the shoulder/upper arm and armpit/underarm areas. DAP provides the same level of protection as the OTV and consists of two upper and lower arm protectors.

What efforts does the Army plan to continue in the future? The U.S. Army began fielding a SAPI Side Plate in 2006. The SAPI Side Plate will be secured to each side of the OTV and provide the Soldier with small arms ballistic protection. This will add approximately two pounds to the total weight of the system.

Why is this important to the Army? IBA is the cornerstone of the U.S Army's force protection strategy. IBA is state of the art and provides our Soldiers with unprecedented protection against serious and lethal bullet and fragmentation wounds.